

# The taxonomic and conservation status of Chapin's Crombec *Sylvietta (leucophrys) chapini*

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Le statut taxonomique et de conservation du Crombec de Chapin *Sylvietta (leucophrys) chapini*. Le Crombec de Chapin *Sylvietta leucophrys chapini* est connu de seulement trois spécimens collectés dans les années 1940 sur le Plateau de Lendu, dans le nord-est de la République Démocratique du Congo. Bien qu'originellement décrit comme espèce, il a généralement été traité depuis comme une sous-espèce du Crombec à sourcils blancs *S. leucophrys*. Dans un certain nombre d'ouvrages récents, il a toutefois de nouveau été considéré comme espèce, nous incitant à réexaminer son statut. La tête de *chapini* est uniformément marron vif, sans le sourcil blanc bien marqué des deux autres sous-espèces de *S. leucophrys*. A l'exception du brun de la tête, qui est un peu plus vif chez *chapini*, le taxon ressemble fortement à *leucophrys* et, en l'absence de preuves vocales, nous estimons qu'il vaut mieux le maintenir comme une sous-espèce distincte. Obtenir des preuves vocales sera problématique, non seulement parce que les troubles civils qui se poursuivent dans la région empêchent tout travail sur le terrain, mais également parce que des doutes existent concernant la survie de *chapini*, la crainte étant que le défrichement de la forêt sur le Plateau de Lendu puisse avoir causé son extinction. Des informations datant du milieu des années 1990 indiquent que de la forêt subsistait en ce temps-là, mais des travaux sur le terrain devraient être menés d'urgence, dès que les circonstances le permettent, car le Crombec de Chapin mérite fortement d'être protégé, irrespectivement de son rang taxonomique.

**Summary.** Chapin's Crombec *Sylvietta leucophrys chapini* is only known from three specimens collected in the 1940s on the Lendu Plateau, north-eastern Democratic Republic of Congo. Although originally described as a species, it has since commonly been treated as a subspecies of White-browed Crombec *S. leucophrys*. In a number of recent works, however, it has again been recognised specifically, thus prompting this review of its status. The head of *chapini* is uniformly bright chestnut and lacks the conspicuous white eyebrow of the other two races of *S. leucophrys*. Apart from the brown of the head being somewhat brighter in *chapini*, it otherwise closely resembles *leucophrys* and, in the absence of vocal evidence, we believe the taxon is best retained as a distinct subspecies. Obtaining such evidence will be problematic: not only does continuing civil unrest in the region prevent any field work, but there is also doubt as to whether *chapini* still exists, as it is feared forest clearance on Lendu may have led to its extinction. Information from the mid 1990s indicated that some forest did then remain but further work, when circumstances permit, is urgently needed as, irrespective of its taxonomic rank, Chapin's Crombec strongly merits its conservation.

The White-browed Crombec *Sylvietta leucophrys* of East Africa occurs in montane forests, mainly at 1,550–2,600 m, rarely slightly lower, and up to 3,000 m in bamboo in some areas (Urban *et al.* 1997). *S. leucophrys* is generally considered to comprise three subspecies (Urban *et al.* 1997, Dickinson 2003). The nominate occurs in Kenya, where it is widespread across much of the highlands, in Uganda, on Mt Elgon in the east and in Kibale Forest in the west, as well as on the slopes of Rwenzori, in both Uganda and the Democratic Republic of Congo. To the south, it is

replaced by *chloronota*, (including *arileuca* Parkes 1987) which occurs from Kigezi, south-western Uganda, and Kivu, eastern DR Congo, south to the highlands north-west and east of Lake Tanganyika (Urban *et al.* 1997, Carswell *et al.* 2005).

The third form, *chapini*, is known only from the Lendu Plateau, north-eastern DR Congo, and differs markedly from the other races in having a complete chestnut cap which extends over the cheeks; it thus lacks their conspicuous eponymous white eyebrows. It was originally described as a

species, *Sylvietta chapini*, by Schouteden (1947) on the basis of three individuals collected on Lendu in the early 1940s by J.M. Vrijdagh and since housed at the Royal Museum for Central Africa (RMCA), Tervuren, Belgium. It was not long, however, before the specific status of *chapini* was questioned, the first to do so apparently being Chapin himself (1953), who wrote 'the grayish underparts, with yellow tibial feathering and under tail-coverts, suggest close relationship to *S. leucophrys*. Despite the difference in head colour, *chapini* may yet prove to be only a race'. White (1962) decided that the subspecific status of *chapini* was indeed proven and formally reduced it, without comment, to a race of *leucophrys*. This treatment was followed by most subsequent authorities, including Hall & Moreau (1970), Wolters (1975–82) (who admitted some uncertainty), Lippens & Wille (1976), Louette (1989), Dowsett & Forbes-Watson (1993), Urban *et al.* (1997), Clements (2000) and Dickinson (2003). The main exceptions, in addition to those mentioned above, are Schouteden (1957, 1963), Mackworth-Praed & Grant (1973), Sibley & Monroe (1990) and Sinclair & Ryan (2003); the latter three all afford it the English vernacular name of Chapin's Crombec.

BirdLife International has responsibility for maintaining, on behalf of IUCN, the Red List of globally threatened bird species. Since its publication, the Red Data Book for Africa (Collar & Stuart 1985) has provided the justificatory backbone for the Afrotropical component of this list. A few years later, BirdLife International adopted Sibley & Monroe (1990, 1993) as its standard global taxonomic source (although this is no longer the case), and this formed the basis for BirdLife's Endemic Bird Area analysis (Stattersfield *et al.* 1998). Since its adoption, however, there were numerous cases where Sibley & Monroe (1990, 1993) taxonomy was not followed. The majority of such exceptions stemmed from studies associated with threat status assessments, including those in Collar & Stuart (1985), which in some cases indicated different taxonomic treatments. Although strenuous attempts were made to reconcile the taxonomies followed by the Red List and Endemic Bird Area programmes, there are a few discrepancies. *Sylvietta (leucophrys) chapini* is one such; Stattersfield *et al.* (1998), and Fishpool & Evans (2001), followed Sibley &

Monroe (1990) in recognising *S. chapini* specifically, whilst the Red List programme, implicitly treating it as a subspecies of *S. leucophrys*, not a species of global conservation concern, did not have occasion to consider its threat status.

We therefore seek to address this discrepancy through reassessment of the taxonomic and conservation status of *Sylvietta (leucophrys) chapini* and, in so doing, we hope to raise its profile. We are acutely conscious that there appear to have been no further records of *chapini* since Vrijdagh's 1942 specimens, whilst loss of habitat within its known range has been such that, even over 15 years ago, Louette (1989)—based on information provided by Upoki A'genonga (M. Louette *in litt.* 2006)—wrote that 'the forest on Lendu plateau is gone', and speculated that *chapini* might no longer exist.

### Morphology

During a visit to RMCA in December 2003, LDCF was able to examine the three *chapini* syntypes and reconfirmed the features identified in the original diagnosis. Briefly, these comprise: top and sides of head and nape rich chestnut-brown, mantle and back brownish with grey bases to feathers, rest of upperparts olive-green with grey feather bases, flight-feathers brown conspicuously fringed bright yellowish green; chin, throat and midline of abdomen white, rest of underparts brownish grey, underwing-coverts, undertail-coverts and thighs lemon-yellow, undertail brown. According to the label data and type description, the bill is greyish pink or flesh-coloured, darker or brownish below, the irides pale brown or chestnut and legs greyish pink to flesh, colours evident from specimen labels to be equally applicable to nominate *leucophrys*.

One of the three syntypes of *chapini*, a male, is shown in Figs. 1–3, photographed alongside a male of the nominate race from Ruwenzori, the population nearest to Lendu, at its closest *c.*1° to the south-west. In addition to the difference in head pattern, the nominate appears in the photograph to be much larger. This is not however borne out by measurement. Thus, Schouteden's type description gives the following for the three *chapini*: wing 56–58 mm, tail 21–23 mm, bill 7–9 mm, tarsus 18–19 mm. Re-measurement largely confirmed these values (one specimen has a damaged bill and a second has broken tarsi), and



Figures 1–3. Dorsal, lateral and ventral views of Chapin's Crombec *Sylvietta leucophrys chapini* (RMCA specimen no. 42513, male syntype, Djugu, Lendu Plateau, north-eastern DR Congo) and White-browed Crombec *S. l. leucophrys* (RMCA specimen no. 29830, male, Ruwenzori, north-eastern DR Congo). *S. l. chapini* is on the left in the dorsal and lateral views and on the right in the ventral view (L. D. C. Fishpool). © Royal Museum for Central Africa, Tervuren, Belgium.

Vues dorsales, latérales et ventrales du Crombec de Chapin *Sylvietta leucophrys chapini* (Musée Royal de l'Afrique Centrale, spécimen no. 42513, mâle syntype, Djugu, Plateau de Lendu, nord-est de la RD Congo) et Crombec à sourcils blancs *S. l. leucophrys* (MRAC, spécimen no. 29830, mâle, Ruwenzori, nord-est de la RD Congo). *S. l. chapini* est à gauche en vues latérale et dorsale et à droite en vue ventrale (L. D. C. Fishpool). © Musée Royal de l'Afrique Centrale, Tervuren, Belgique.

showed that the bill-length in the type description is of exposed culmen. Equivalent data for 13 nominate specimens (five male, six female and two unknown) from Ruwenzori in the Natural History Museum (NHM), Tring, UK, (measured by NJC) were: wing 53–61 mm, tail 23–26 mm, bill from skull 12.3–13 mm, bill from nares 6.7–7.5 mm and tarsus 21–23 mm. These suggest that *chapini* may have rather shorter legs, but the difference is not striking.

An additional character by which *chapini* is said, by Urban *et al.* (1997), to differ from other races is in having a yellow-buff wash to the grey of the belly—a difference which in Sinclair & Ryan (2003) becomes 'yellowish (not dark grey) underparts'—but this is not supported either by Schouteden's type description, subsequently summarised by him as underparts brownish grey, chin, throat and centre of belly white; undertail-coverts lemon-yellow (Schouteden 1957; our translation), or by the quote from Chapin (1953) given above,

or by the specimens (Fig. 3). This character may be attributable to an anonymous, undated note accompanying two slides of a male from Djugu held in the NHM. Part of this note reads 'No.42513 Tervuren. ? Djugu Forest 26/11/42 coll. Vrydagh. Above a close match with [NHM specimen] *S. leucophrys* 1910.12.26.273 from Mt Elgon on mantle & below, except for a yellow-buff wash on the tummy. Head richer brown with no white eye-stripe'. The two slides show lateral views of the specimen in which little of the belly can be seen. Fortunately, however, a ventral view of the same *chapini* specimen appears in Fig. 3 and, as is apparent, any yellow wash on the belly is exceedingly faint; it seems improbable that post-mortem effects could account for a loss of colour, since Schouteden's type description would surely have mentioned the character had it been apparent.

The only major morphological difference between *chapini* and nominate *leucophrys*—and indeed *chloronota*, which differs from the latter

only in its rather greener upperparts and in having slightly more brown on the ear-coverts and cheeks—therefore resides in the uniform chestnut head of the former: the lack of the broad white supercilium makes it appear strikingly different. The head colour of *chapini* is also richer and brighter than in most *leucophrys*, including that shown in Fig. 1, and whilst there is some variation between nominate *leucophrys* specimens in intensity of head colour, in none of those examined is it as deep as *chapini*.

### Locality data and field observations

The Lendu Plateau is a large massif situated at the northern end of the Albertine Rift, west of Lake Albert, in north-eastern DR Congo, bordered to the north by the Ugandan frontier. The altitude of the plateau varies between 1,700 and 2,000 m, rising along its eastern edge to a number of cone-shaped mountains, of which the highest is Mt Aboro at 2,455 m. The plateau is predominantly grassland with isolated trees; montane forest formerly occurred in patches above 1,500 m, but has now largely been destroyed. The forest near Djugu, in the valley of the Nizi River, is thought to be the most important remnant (Vrydagh 1949, Demey & Louette 2001). Indeed, this forest was the source of one of Vrydagh's three specimens: an adult male collected on 26 November 1942 (RMCA 42513), whilst the other two, an adult male and a 'juvenile' (but see below) female, came from Nioka on 24 November 1942 (RMCA 42512) and 24 July 1941 (RMCA 42511) respectively. These collection dates and genders differ slightly from those given by Schoutedden (1947) and Vrydagh (1949), which are themselves inconsistent; the data given here are taken from the specimen labels and also those that appear in Louette *et al.* (2002). Chapin (1953) gives the altitude for Djugu (01°55'N 30°30'E) as 5,400 ft (*c.*1,800 m) and Nioka (02°09'N 30°40'E) as 5,700 ft (*c.*1,900 m).

All that is known of *chapini* in life comes from the few observations by Vrijdagh (1949), who reported that it behaved as others of the genus. He thought it reasonably common on Lendu, since he saw several others in addition to those he collected. Whilst Vrijdagh considered it unquestionably a forest bird, he found that it was not exclusively so, since the first individual to be collected was in

the branches of a *Eucalyptus* outside the hotel in Nioka. Later in his short account, however, Vrijdagh says that this and the second Nioka specimen were shot in gallery forest. The Djugu individual was taken in forest, where he saw two further individuals in dense undergrowth, in flight and foraging for insects on branches, around which they worked rapidly.

### Discussion

Sibley & Monroe (1990), whilst acknowledging that *chapini* was 'usually considered a race of *S. leucophrys*', treated it as a species because they felt that the 'differences in face pattern suggest allospecies status.' However, having had the benefit of being able to examine the skins, and whilst recognising that *chapini* differs strongly in head pattern and, to a lesser extent, colour—but in little else—we do not feel that such differences are sufficient to merit this treatment and prefer, on present evidence, to retain *chapini* provisionally as a distinctive subspecies of *leucophrys*.

Part of our reluctance in this matter relates to the fact that the head pattern of *chapini* is not dissimilar to the juvenile plumage of the other races. Louette (1989), who asserted that 'without doubt the *chapini* specimens are adults' (notwithstanding that one is indeed labelled juvenile [Louette *et al.* 2002]), pointed out that 'immatures' of *chloronota* 'lack the white superciliary stripe of the adult or only show a faint indication of it'. This was amplified by Zimmerman *et al.* (1996), who wrote that 'juvenile' nominate *leucophrys* has, on leaving the nest, a chocolate-brown crown with no trace of superciliary stripes as well as a pale yellow lower breast and belly and a brown chin and upper breast, whereas the 'immature' has pale greenish-yellow superciliary stripes, whilst the brown of the underparts extends in a point onto the throat. Allowing for the difference in terminology here, it seems clear that what Zimmerman *et al.* (1996) called juvenile *leucophrys* appears to resemble adult *chapini* in head pattern, even if the colour is rather darker.

The case for or against species status for *chapini* could be resolved most usefully by vocal evidence (we are less comfortable in saying the same for DNA evidence, since views vary considerably as to the appropriate levels of molecular differentiation for allocating species rank). If it proved to

call and/or sing in ways significantly different from the other two races—which are reported to differ somewhat vocally (Stevenson & Fanshawe 2002)—then we would recommend opting for species status for the taxon. The combination of the head coloration and pattern with such vocal distinctiveness would strongly vouch for such a treatment.

Obtaining such vocal evidence will, however, be problematic, partly because of the political instability of the region and partly for a more immediate consideration: does Chapin's Crombec still survive? All reports indicate that there has been large-scale clearance of forest on Lendu, to the extent that, as Louette's (1989) comment quoted above indicates, the three RMCA specimens may be all that remain of this bird. The observations of Pedersen (1997), however, suggest that such an assessment may be unduly pessimistic. He was able to overfly the Lendu Plateau in 1993 and reported seeing two areas of forest, one at Djugu, and a second east of Nioka close to the edge of the plateau—significantly at, or close to, the original collecting localities. He estimated each then to cover an area approximately equivalent to ten football pitches. Together with Marc Languy and Laurent Esselen, Tommy Pedersen subsequently visited Lendu for two days in February 1994 and spent time in the remnant forest at Djugu. Although they were unable to find *chapini*, they did rediscover the globally threatened Prigogine's Greenbul *Chlorocichla prigoginei*, known only from Lendu and also from the Beni–Butembo region, to the south-west. Pedersen (1997) also reported several other montane forest species still persisting at Djugu, but saw evidence everywhere of logging by the local human population. Despite both this and their lack of success with *chapini*, the fact that suitable habitat remained on Lendu up until at least 12 years ago must give some hope that reports of the demise of *chapini* may be premature. On the other hand, the comment of Zimmerman *et al.* (1996) that *leucophrys* formerly occurred in the forests and suburbs of Nairobi, Kenya, but no longer does so, suggests that the species is perhaps rather intolerant of disturbance and fragmentation.

Chapin's Crombec is the only avian taxon entirely confined to the Lendu Plateau (Prigogine 1985) and no strict endemics in other vertebrate groups, at least at species level, have been reported

from the massif (Plumptre *et al.* 2003). The range of *chapini*, limited to a restricted outlier at the northern end of the Albertine Rift (possibly little more 100 km north-east of the nearest populations of the nominate subspecies in Ruwenzori), is therefore unusual and, at least among birds, appears unique. Although nominate *leucophrys* is replaced south of Ruwenzori by (the not very different) *chloronota*, which occupies the rest of the Albertine Rift, it reappears on Mt Elgon in extreme eastern Uganda and thence extends throughout much of the central Kenyan highlands.

Whether *chapini* is, or was, always so confined is perhaps open to question. Prigogine (1985) pointed out that some montane forest occurred, or at least used to do so, to the west of the Lendu Plateau, on Mt Wago (01°44'N 30°49'E), around Mongbwalu (01°56'N 30°02'E) and at Bondo Mabe (02°36'N 29°34'E); these forests, if still extant, remain as unexplored ornithologically now as they were when Prigogine called for 'urgent' surveys of them over 20 years ago. Whilst it is unknown what effect the protracted political unrest which continues to afflict Ituri and the Lendu Plateau area has had on the remaining forests of the region, it is certain that the lack of security rules out any imminent prospect of surveys or, indeed, of conservation work in the region. As and when circumstances do permit, we sincerely hope that Chapin's Crombec will be found to have survived for, irrespective of taxonomic rank, it unarguably merits conservation.

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